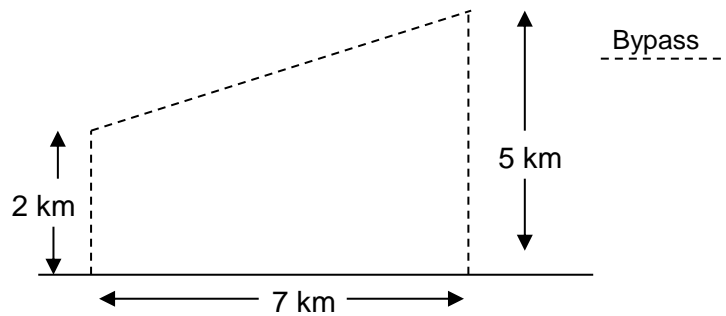
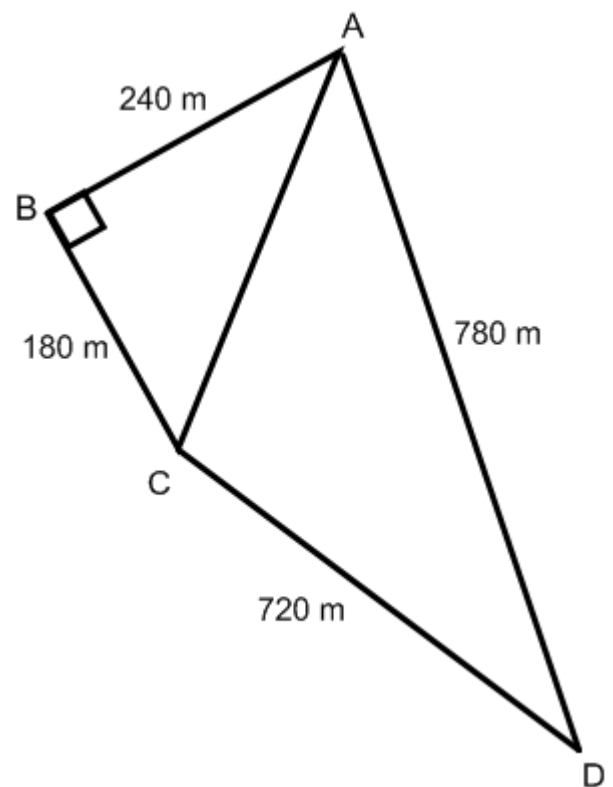


Homework 9 – Revision

- If $x = -3$ and $y = 2$ find: (a) xy (b) $x^2 - y$ (c) $3x + 7y$
- Solve: (a) $x + 7 = 4x + 1$ (b) $(y + 3)(y + 5) = (y - 5)^2$
- Write (a) 456000 in Scientific Notation (b) 3.7×10^{-5} out in full
- A bypass is being built to reduce traffic through a town. Find the **total** length of the bypass.



- Show that triangle ACD is right-angled at C.
- Expand: (a) $(x + 5)(x - 4)$ (b) $(2y - 5)^2$
- Alistair buys an antique chair for £600. It is expected to increase in value at the rate of 4.5% each year. How much is it expected to be worth in 3 years?
- In a sale, all cameras are reduced by 20%. A camera now costs £45. Calculate the original cost of the camera.
- (a) A car covers 30km in 40 minutes what is its average speed in km/h?
(b) How long will a journey of $112\frac{1}{2}$ km take if the driver keeps up the same average speed but stops for half an hour for coffee on the way?



- The diagram opposite represents a playground chute. AC represents the slide and AB the stairs.

A local council ruling states: "for a slide to be safe the **maximum** permissible angle between the slide and the ground is 35° ".

Does this diagram represent a "safe" slide?

